

REMARKS

These remarks and the accompanying amendments are responsive to the Office Action dated January 16, 2007 (hereinafter the "Office Action"), having a shortened statutory period for response that expires April 16, 2007. At the time of the last examination, Claims 1, 2, 4-8, 18-20, 22, 23, 33-37, 47, 49, 51 and 53-85 were pending. By this response, Claims 7 and 51 are cancelled and no claims are added. Accordingly, upon entry of this response, Claims 1, 2, 4-6, 8, 18-20, 22, 23, 33-37, 47, 49 and 53-85 will be pending for further consideration. By this response, Claims 1, 4, 8, 69, 80 and 83 are currently amended.

As a preliminary matter, section 13 of the Office Action allows Claims 5, 6, 8, 18-20, 22, 23, 33-37, 47, 49, 53-68, 70-77 and 85. Furthermore, section 7 rejected Claims 7 and 51 under 35 U.S.C. 101, which rejection is now moot in light of the cancellation of Claims 7 and 51. Section 9 of the Office Action rejected Claim 7 under 35 U.S.C. 103(a), which rejection is also rendered moot due to the cancellation of Claim 7. Accordingly, only Claims 1, 2, 4, 69 and 78-84 remain at issue to be discussed further in this response. Additionally, although Claim 8 is indicated to be allowable, there is just one claim objection that is to be addressed.

Section 3 of the Office Action objects to certain language in Claims 1, 4, 8 and 69 and recommends certain amendments. The recommended changes to Claims 1, 4 and 8 have been so amended by this response. As a closely related matter, section 14 of the Office Action indicates that Claims 1, 2, 4 and 8 would be allowable if amendment to overcome this claim objection. Accordingly, Claims 1, 2, 4 and 8 are also in allowable form. This leaves only Claims 69 and 78-84 still to be considered.

Regarding Claim 69, section 3 of the Office Action obtains N pieces of channel estimation values by time-weighting and averaging the pilot signals using N sets of weight

sequences, compensates data sequence using each of the channel estimation values, and RAKE combines each of the N sets of the data sequences after the compensation.

In the Office Action, the Examiner suggested that the "the N sets of the data sequences" should be replaced by "the N sets of the weight sequences". However, claim 69 compensates data sequence by using each of the obtained N pieces of channel estimation values, and as a result, the N sets of the (compensated) data sequences are generated. Then, claim 69 RAKE combines each of those N sets of the (compensated) data sequences. Claim 69 defines these processes.

Therefore, regarding "the N sets of the data sequences" of claim 69, the applicants believe that no amendment is necessary. Accordingly, the applicants request reconsideration of the objection to Claim 69.

Section 5 of the Office Action rejected Claims 69, 80 and 83 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, several antecedent basis issues were noted in the Office Action. Claims 69, 80 and 83 are amended herein to address the noted antecedent basis issues.

On a related note, section 15 of the Office Action indicates that Claim 69 would be allowable if amended to overcome the 35 U.S.C. 112, second paragraph, rejection and the claim objections. Claim 69 is amended to overcome the 35 U.S.C. 112 rejection, and the claim objection should be withdrawn. Accordingly, the Applicant's believe Claim 69, as amended herein, is in allowable form. This now leaves only Claims 78-84 at further issue to be discussed.

Section 12 of the Office Action rejects Claim 78 under 35 U.S.C. 102(e) as being anticipated by United States patent number 6,304,624 issued to Seki et al. (the patent hereinafter referred to as "Seki").

The Office Action asserts that the step of "selecting one output data sequence by making judgment of reliability of said plurality of demodulated data" of claim 78 is disclosed at figure 15, elements 4, 9, 11 and column 14, lines 26-32, 47-53 of Seki et al (see page 7, lines 6-9 of the Office Action).

In Figure 15 of Seki, each of the elements 3 and 7 outputs a channel estimation value. However, only data that is outputted to the decoder 12 is one which has been compensated by using the channel estimation value calculated at the element 7. That is, the data which has been compensated by using the channel estimation value calculated at the element 3, is just inputted into the element 7 for calculating the channel estimation value at the element 7. Therefore, Seki et al do not teach or suggest "making judgment of reliability of said plurality of demodulated data" as recited in Claim 78.

Further, it seems that the Office Action is assuming that judgment of reliability of demodulated data is made at the final determination circuit 11 (please see page 7, lines 7-8 of the Office Action). However, the final determination circuit 11 determines the data itself (it determines what the transmitted data is). The final determination circuit 11 does not determine the reliability of the data. This can be understood from the following passage:

Thereafter, a final determination is performed by the final determination circuit 11. The finally determined data symbol is output to the decoder 12 so as to be decoded." (Seki, column 14, lines 50-53).

For this reason as well, it becomes clear that Seki does not conduct "making judgment of reliability of demodulated data".

Further, since the final determination circuit 11 determines the inputted data, and outputs all the determined data, Seki et al also do not conduct "selecting one output data sequence".

Thus, claim 78 is not anticipated by Seki, which does not disclose a feature of claim 78, i.e. "selecting one output data sequence by making judgment of reliability of said plurality of demodulated data".

Even if United States patent number 6,070,086 issued to Dobrica (the patent hereinafter referred to as "Dobrica"), since Dobrica also does not disclose the above-mentioned feature of claim 78, claim 78 is not obvious over Seki et al and Dobrica. Therefore, Claim 78 is patentable and in allowable form. On a related matter, section 16 indicated that Claim 79 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Accordingly, since Claim 78 is allowable, Claim 79 should now be allowable as well.

Section 10 of the Office Action rejects Claims 51 and 80-84 under 35 U.S.C. 103(a) as being unpatentable over Seki in view of Dobrica. The rejection is moot with respect to Claim 51, and the applicants traverse the rejection with respect to Claims 80-84.

Claims 80-84 depend on three independent claims, Claims 69, 70 and 78. The Examiner did not reject claims 69 and 70 for anticipation or non-obviousness reasons, and thus it is assumed that the rejection of Claims 80-84 is based on their dependency from Claim 79.

As for independent claim 78, as we explained above, claim 78 is allowable over Seki and Dobrica (either singly or in combination). Therefore, Claims 80-84 are also allowable over Seki and Dobrica (either singly or in combination).

Therefore, all of the claims are patentable and in allowable form.

As a supplemental matter, the applicants wishes to thank the Examiner for considering the art submitted in various information disclosure statements. Upon reviewing the file, the undersigned have discovered that most of the PTO 1449 forms have been returned to the applicants initialed by the Examiner. However, there are three PTO 1449 forms that are missing. In particular, the applicants have not received three initialed citation sheets, 1) one submitted with the original patent application on December 1, 2000, 2) one submitted on August 16, 2006 with an IDS, 3) and one submitted with the prior response on October 13, 2006.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified through a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 16th day of March, 2007.

Respectfully submitted,

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